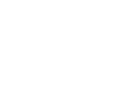


26. A method according to claims 25, wherein the semiconductor film is an amorphous semiconductor film or a micro crystal semiconductor film.
27. A method according to claim 25, wherein the harmonic is one of second harmonic, third harmonic, and fourth harmonic.
28. A method for manufacturing a semiconductor device comprising the steps of:
forming an insulating film over a substrate;
forming a semiconductor film on the insulating film;
crystallizing the semiconductor film by irradiation of harmonic of a YVO₄ laser;

 patterning the crystallized semiconductor film to form a crystallized island-like semiconductor film; and
 forming at least a channel region of a thin film transistor in the crystallized island-like semiconductor film,
 wherein the insulating film comprises at least one material selected from the group consisting of silicon oxide, silicon oxynitride and silicon nitride.
29. A method according to claims 28, wherein the semiconductor film is an amorphous semiconductor film or a micro crystal semiconductor film.
30. A method according to claim 28, wherein the harmonic is one of second harmonic, third harmonic, and fourth harmonic.
31. A method for manufacturing a semiconductor device comprising the steps of:
forming a semiconductor film on an insulating surface;
providing a crystallization promoting material with the semiconductor film;
crystallizing the semiconductor film by irradiation of harmonic of a YVO₄ laser;

 patterning the crystallized semiconductor film to form a crystallized island-like semiconductor film; and

forming at least a channel region of a thin film transistor in the crystallized island-like semiconductor film.

32. A method according to claims 31, wherein the semiconductor film is an amorphous semiconductor film or a micro crystal semiconductor film.

33. A method according to claim 31, wherein the harmonic is one of second harmonic, third harmonic, and fourth harmonic.

34. A method for manufacturing a semiconductor device comprising the steps of:
forming a semiconductor film on an insulating surface;

A1
crystallizing the semiconductor film by irradiation of harmonic of a solid laser comprising Nd;

patterning the crystallized semiconductor film to form a crystallized island-like semiconductor film; and

forming at least a channel region of a thin film transistor in the crystallized island-like semiconductor film.

35. A method according to claims 34, wherein the semiconductor film is an amorphous semiconductor film or a micro crystal semiconductor film.

36. A method according to claim 34, wherein the harmonic is one of second harmonic, third harmonic, and fourth harmonic.

37. A method for manufacturing a semiconductor device comprising the steps of:
forming a semiconductor film on an insulating surface;

comprising Nd;
crystallizing the semiconductor film by irradiation of harmonic of a solid laser

patterning the crystallized semiconductor film to form a crystallized island-like semiconductor film; and

forming at least a channel region of a thin film transistor in the crystallized island-like semiconductor film,

wherein the harmonic of the YVO₄ laser has a shape which has aspect ratio of 10 or more.

38. A method according to claims 37, wherein the semiconductor film is an amorphous semiconductor film or a micro crystal semiconductor film.

39. A method according to claim 37, wherein the harmonic is one of second harmonic, third harmonic, and fourth harmonic.

40. A method for manufacturing a semiconductor device comprising the steps of:
forming an insulating film over a substrate;
forming a semiconductor film over the insulating film;
crystallizing the semiconductor film by irradiation of harmonic of a solid laser comprising Nd;

patterned the crystallized semiconductor film to form a crystallized island-like semiconductor film; and

forming at least a channel region of a thin film transistor in the crystallized island-like semiconductor film,

wherein the insulating film comprises at least one material selected from the group consisting of silicon oxide, silicon nitride and silicon oxynitride.

41. A method according to claims 40, wherein the semiconductor film is an amorphous semiconductor film or a micro crystal semiconductor film.

42. A method according to claim 40, wherein the harmonic is one of second harmonic, third harmonic, and fourth harmonic.

43. A method for manufacturing a semiconductor device comprising the steps of:

forming a semiconductor film on an insulating surface;

providing a crystallization promoting material with the semiconductor film;

crystallizing the semiconductor film by irradiation of harmonic of a solid laser comprising Nd;

patterning the crystallized semiconductor film to form a crystallized island-like semiconductor film; and

forming at least a channel region of a thin film transistor in the crystallized island-like semiconductor film.

44. A method according to claims 43, wherein the semiconductor film is an amorphous semiconductor film or a micro crystal semiconductor film.

45. A method according to claim 43, wherein the harmonic is one of second harmonic, third harmonic, and fourth harmonic.--